

Sub C2> chromoplast particles being particles [separated from a fruit which contained them,] and

AT wherein the coloring material comprises from 500 to 3000 ppm of said chromoplast particles encapsulating crystalline lycopene, and wherein the chromoplast particles are substantially intact, and wherein the coloring material has a soluble solids concentration below 5° Bx.

Sub C3> 8. (Amended) A process for preparing a coloring material comprising as a color-imparting agent chromoplast particles containing crystalline lycopene, comprising:

a) selecting and pre-treating a lycopene-containing fruit by cleaning it;

b) breaking the fruit;

AO c) screening out solid components above a predetermined dimension; and

d) separating by centrifugation a fruit serum from a material thus obtained, wherein said process is carried out under conditions providing said chromoplast particles containing crystalline lycopene such that the chromoplasts are substantially intact, thereby obtaining a color concentrate comprising the said color-imparting agent:

wherein the coloring material comprises from 500 to 3000 ppm of lycopene and wherein the material has a soluble solids concentration below 5° Bx.

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24. (Amended) A process for coloring a food product which comprises:

a) cleaning and breaking tomatoes which comprise chromoplasts containing lycopene in the amount of at least 120 ppm;

b) screening out solid components therefrom of a predetermined size; and

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c) separating a serum from a screened tomato material by centrifugation, wherein said process is carried out under conditions providing said chromoplast particles containing crystalline lycopene such that the chromoplasts are substantially intact, thereby to obtain a color concentrate comprising said chromoplasts containing crystalline lycopene in a concentration from 500 to 3000 ppm and introducing said concentrate into said food products.

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29. (Amended) A nutraceutical in the red color range, comprising, as the active ingredient, chromoplast particles encapsulating crystalline lycopene, said chromoplast particles being particles separated from a fruit which contains them, and

wherein the nutraceutical comprises from 500 to 3000 ppm of said chromoplast particles encapsulating lycopene and wherein the chromoplast particles are substantially

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intact, and wherein the material has a soluble solids concentration below 5° Brix and a carrier.

35. (Amended) A process for preparing a neutraceutical composition comprising as the neutraceutical active ingredient, chromoplast particles containing crystalline lycopene, comprising:

a) selecting and pre-treating a lycopene-containing fruit by cleaning it;

b) breaking the fruit;

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c) screening out solid components above a predetermined dimension; and

d) separating by centrifugation, a fruit serum from the material thus obtained, wherein said process is carried out under conditions providing said chromoplast particles containing crystalline lycopene such that the chromoplasts are substantially intact, thereby obtaining a lycopene concentrate comprising from 500 to 3000 ppm of lycopene and wherein the material has a soluble solids concentration below 5° Brix.

Delete non-statutory claims 15 and 16.

Delete claims 17-22 in favor of the remaining claims.

In place of the cancelled claims, add the following new claims:

sub c1>
--41. (New) In a food product or a health-promoting and health-maintaining consumable product comprising lycopene molecules as a food colorant or as a nutraceutical, the improvement wherein said lycopene molecules are in crystalline form encapsulated in chromoplasts, and wherein said chromoplasts are substantially intact.

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--42. (New) The food product or health-promoting and health-maintaining consumable product of claim 41, wherein said chromoplasts are derived from tomatoes.

--43. (New) The food product or health-promoting and health-maintaining consumable product of claim 41, wherein said chromoplasts have been water-washed to remove flavors.--

REMARKS

The final Office Action of January 11, 2001, and the references relied upon therein have been carefully studied. Upon entry of the present amendment, the claims in the application will be claims 1-14 and 23-43, and these claims define patentable subject matter warranting their allowance. Applicants respectfully request favorable reconsideration, entry of the present amendment and allowance.